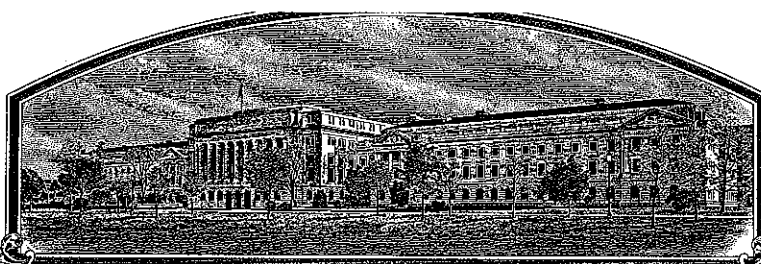


No.

200500115



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

California Planting Cotton Seed Distributors

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COTTON

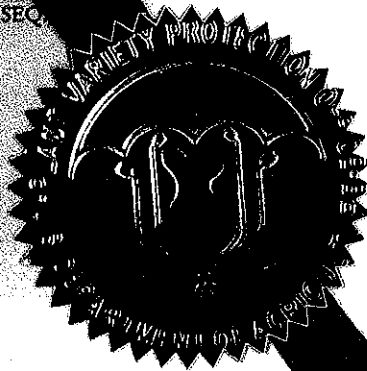
'Hammer'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this nineteenth day of September, in the year two thousand and five.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

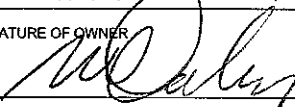


U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER California Planting Cotton Seed Distributors		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME C103	3. VARIETY NAME Hammer
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) PO Box 80357 Bakersfield, CA 93380.0357		5. TELEPHONE (include area code) (661) 399-1400	FOR OFFICIAL USE ONLY PVPO NUMBER 2005 00115 FILING DATE FEB. 3, 2005
		6. FAX (include area code) (661) 399-3169	
7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Corporation	8. IF INCORPORATED, GIVE STATE OF INCORPORATION California	9. DATE OF INCORPORATION May 13, 1936	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Stephen R. Oakley 30597 Jack Avenue Shafter, CA 93263			FILING AND EXAMINATION FEES: \$ 3,652.00 DATE 2/3/05 CERTIFICATION FEE: \$ 682.00 DATE 8/16/05
11. TELEPHONE (Include area code) (661) 746-3366	12. FAX (include area code) (661) 746-6905	13. E-MAIL sroakley@cpcsd.com	14. CROP KIND (Common Name) cotton
15. GENUS AND SPECIES NAME OF CROP Gossypium hirsutum L.		16. FAMILY NAME (Botanical) Malvaceae	17. IS THE VARIETY A FIRST GENERATION HYBRID? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input checked="" type="checkbox"/> YES (If "yes", answer items 20 and 21 below) <input type="checkbox"/> NO (If "no", go to item 22) 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)	
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) See Reverse Side	
24. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF OWNER 		SIGNATURE OF OWNER	
NAME (Please print or type) Stephen R. Oakley		NAME (Please print or type)	
CAPACITY OR TITLE Vice President, Director of R&D	DATE 28 Jan 2005	CAPACITY OR TITLE	DATE

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to **reproduce** the variety, or for tuber reproduced varieties verification that a viable (*in the sense that it will reproduce an entire plant*) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See *Regulations and Rules of Practice*, Section 97.103).
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

A filing for application of Patent protection is anticipated in February, 2005.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. <http://www.ams.usda.gov/lsg/seed.htm>

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

ST-470 (02-10-2003) designed by the Plant Variety Protection Office with Word 2000. Replaces former versions of ST-470, which are obsolete.

Exhibit A. Origin and Breeding History – Hammer

Hammer is a variety of cotton developed from the cross B9610 X B432 made in 1994 at the California Planting Cotton Seed Distributors (CPCSD) Cotton Research and Development Station, Shafter, California. The parents B9610 and B432 are San Joaquin Valley (SVJ) Acala cotton varieties owned by CPCSD, and were developed for improved Verticillium wilt resistance, fiber quality and lint yield. B9610, developed from the cross B4164 x B2774, was released by CPCSD as Acala Maxxa GTO protected under PVP# 9700072, while B432 was developed from B4884 x B6058. The lines were developed as follows: B4884 is derived from (C6TE x NM B3080) X (C6TE x NM7378), and B6058 is from [(C6TE x NM B3080) X (AXTE 1-57 x Tex E364)] X [(C6TE x NM B3080) x Tashkent 1].

The breeding lines C6TE and AXTE 1-57 were developed at the USDA Cotton Research Station, Shafter, CA, while NM B3080 and NM7378 came from the New Mexico State University cotton breeding program. Texas E364 was developed by the Texas Agricultural Experiment Station, El Paso, Texas, and Tashkent 1 was an introduction in the USDA germplasm collection. The backgrounds of these lines are detailed by Calhoun, D.S., D.T. Bowman, and O.L. May, 1994, Pedigree of Upland and Pima Cotton Cultivars Released Between 1970 and 1990, MAFES Bulletin 1017, Mississippi State University, MS 39762.

Details of Selection

Seed from the cross B9610 X B432 were planted in the 1994-1995 USDA Cotton Winter Nursery, Tecoman, Mexico, and subsequently in the 1995 CPCSD Shafter nursery as an F₁ population. F₂ - F₃ populations were planted in CPCSD Strathmore, CA, nurseries and were bulk harvested. A pedigree selection procedure followed in the F₄ population (plant to row basis) as individual plants were each selected on the basis of agronomic characteristics, yield potential, and fiber properties. In 1998 F₆ seed from the F₅ row B6736 was bulk harvested, designated B6736, and entered into the 1999 CPCSD Lines Test. B6736 continued evaluation in the 2000 through 2004 CPCSD testing programs, while in 2001 and 2004 B6736 was entered into the San Joaquin Valley Cotton Board (SVVCB) testing program as C103. In 2004 CPCSD gave C103 the name 'Hammer'.

Variants and Stability

Hammer was evaluated for six generations and no variants have been observed. The performance of Hammer has been uniform and stable.

Population Size for Selection

Population	Approximate Number of Individuals
F ₁	180
F ₂ - F ₄	2000
F ₅	60

Exhibit A. Origin and Breeding History – Hammer

<u>Year</u>	<u>Event</u>	<u>Generation</u>
1994	Cross: B9610 X B432 Pedigree: B9610 = B4164 x B2774 = PVP#9700072 B432 = B4884 x B6058	
1994-95	Cross B9610 X B432 planted in USDA CWN, Tecoman, Mexico, as Row CM9442	F ₁
1995	Planted as row A6374	F ₂
1996	Planted as row B5429	F ₃
1997	Planted as row B6143	F ₄
1998	Plant selection B6143-5 planted as row B6736. B6736 bulk harvested.	F ₅
1999	B6736 Planted in CPCSD Lines Test	
2000	B6736 Planted in CPCSD Preliminary Strain Test	
2001	B6736 Planted in CPCSD Advanced Strain Test, and entered into SJVCB Screening Test as C103	
2002	B6736 continued in CPCSD Advanced Strain Test	
2003	B6736 continued in CPCSD Advanced Strain Test	
2004	B6736 continued in CPCSD Advanced Strain Test, C103 advanced by SJVCB into Acala Variety Test 1, and renamed Hammer.	

Exhibit B. Statement of Distinctness – Hammer

Hammer was compared to Acala Maxxa (the SJVCB Standard) and Phytogen 72 in 36 test locations over six years. Hammer is most similar to Acala Maxxa.

Hammer is distinctly different from both Maxxa and Phytogen 72 in having higher lint yield, gin turn-out, lint percent, and Hammer has lower fiber length and yarn strength than either variety.

In summary, Hammer is a novel cotton variety because of its significantly higher lint yield, gin turn-out, lint percent, and lower fiber length and yarn strength when compared to Acala Maxxa.

B6736 = 'HAMMER' <C103> EX. A ^{h.w.} 9/1/05

Table 1. 2001 - 2003 CPCSD Advanced Strain Test					
Variety	Lint Yield Average (lbs/A)	Gin Turn Out (%)	Lint Percent (%)	2.5% Length (in)	Yarn Str. (g/tex)
Maxxa	1384	33.1	38.9	1.177	141.0
Phy72	1580	31.9	37.4	1.210	139.8
B6736	1754	38.5	44.9	1.104	133.2
LSD.05	99	0.8	0.7	0.018	5.1
CV%	11.1	9.4	11.9	4.1	5.3

U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 400
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
COTTON (*Gossypium* spp.)

NAME OF APPLICANT(S) California Planting Cotton Seed Distributors	TEMPORARY DESIGNATION C103	VARIETY NAME Hammer
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) PO Box 80357 Bakersfield, CA 93380-0357		FOR OFFICIAL USE ONLY PVPO NUMBER <div style="font-size: 1.5em; font-weight: bold;">2005 00115</div>

Place the appropriate data that describes the varietal characteristic of this variety in the space provided. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characters marked with an asterisk * indicate necessary characters to be measured.

SPECIFIC VARIETIES USED FOR COMPARISON AS CHECK VARIETIES IN THIS APPLICATION: Use standard regional check varieties which are adapted to your area. One of the comparison varieties must be the most similar variety used in Exhibit B.

Variety 1. Phytogen 72 Variety 2. Acala Maxxa Variety 3.

*1. SPECIES:

☒ *G. hirsutum* L.

☐ *G. barbadense* L.

*2. AREA(S) OF ADAPTATION: (A=Adapted, NA= Not Adapted, NT= Not Tested)

<input type="checkbox"/> Eastern	<input type="checkbox"/> Delta	<input type="checkbox"/> Central	<input type="checkbox"/> Blacklands
<input type="checkbox"/> Plains	<input type="checkbox"/> Western	<input type="checkbox"/> Arizona	<input checked="" type="checkbox"/> San Joaquin
<input type="checkbox"/> Other (Specify): <u> </u>			

3. GENERAL: Characteristics which are known to be variable but are still useful for a meaningful description of the variety.

	Hammer Application Variety	Phy 72 Comparison Variety 1	Maxxa Comparison Variety 2	Comparison Variety 3
Plant Habit: Spreading, Intermediate, Compact	I	I	I	
Foliage: Sparse, Intermediate, Dense	I	I	I	
Stem Lodging: Lodging, Intermediate, Erect	I	I	I	
Fruiting Branch: Clustered, Short, Normal	N	N	N	
Growth: Determinate, Intermediate, Indeterminate	Intermed	Intermed	Intermed	
Leaf Color Greenish yellow, Light green, Medium green, Dark green	DG	LG	DG	

3. GENERAL:

	Hammer	Phy 72	Maxxa	
Boll Shape: Length LESS than width, Length EQUAL to width, Length MORE than width	More	More	More	
Boll Breadth: Broadest at base, Broadest at middle	Middle	Middle	Middle	

*4. MATURITY: (Days for 50% Open bolls from sequential harvest dates.)

Days for 50% Open Bolls	144	147	150	
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5. PLANT:
Cm to 1st Fruiting Branch:

(from cotyledonary node)	20.2	22.5	22.2	
No. of Nodes to 1st Fruiting Branch:				
Branch:				
(excluding cotyledonary node)	4.5	4.9	4.7	
Mature Plant Height cm:				
(from cotyledonary node to terminal)	85.5	91.6	81.9	

*6. LEAF

Type: Normal Sub Okra, Okra,

Super Okra	N	N	N	
Pubescence: Absent, Sparse, Medium, Dense OR Trichomes/cm2 (Bottom surface excluding veins)	M	M	M	
Nectaries: Present or Absent	P	P	P	

*7. STEM PUBESCENCE:
Glabrous, Intermediate, Hairy

I	G	I	
---	---	---	--

*8. GLANDS: (Gossypol) Absent, Sparse, Normal, More Than Normal

Leaf:	N	N	N	
Stem:	N	N	N	
Caly% Lobe: (normal is absent)	A	A	A	

*9. FLOWER

Petals: Cream, Yellow	C	C	C	
Pollen: Cream, Yellow	C	C	C	
Petal Spot: Present, Absent	A	A	A	

*10. SEED

Seed Index:

(g/100 seed, fuzzy basis)	11.8	11.4	11.4	
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Lint Index:

(g lint/100 seeds)	10.4	7.3	8.9	
--------------------	------	-----	-----	--

*11. BOLL

		Hammer	Phy 72	Maxxa	
Lint Percent:					
<u>X</u> Picked	Pulled	46.2	38.8	39.7	
OR					
Gin Turnout:					
<u>X</u> Picked	Stripped	39.9	32.5	34.0	
Number of Seeds per Boll		26.5	29.5	27.3	
Grams Seed per Boll		5.3	5.6	5.7	
Number Locules per Boll		4-5	4-5	4-5	
Boll Type:					
(Stormproof, Storm Resistant, Open)		Open	Open	Open	

12. FIBER PROPERTIES

Specify Method (HVI or other): Individual Instruments

* Length: (inches, 2.5% SL)	1.12	1.22	1.175	
* Uniformity: (%)	53.2	51.0	51.5	
* Strength, T1 (g/tex) stelometer	26.5	29.5	27.3	
* Elongation, E1 (%)	8.2	9.7	8.8	
* Micronaire:	3.91	4.30	4.16	
Fineness (Source _____)				
Yarn Tenacity: (cN/tex, 27 tex)				
Yarn Strength (lbs. 22's)	133	134	137	

13. DISEASES: (NT=Not Tested, S= Susceptible, MS=Moderately Susceptible, MR=Moderately Resistant, R=Resistant)

<u>NT</u> <i>Alternaria macrospora</i>	<u>NT</u> Fusarium Wilt
<u>NT</u> Anthracnose	<u>NT</u> Phymatotrichum Root Rot
<u>NT</u> Ascochyta Blight	<u>NT</u> <i>Pythium</i> (specify species)
<u>NT</u> Bacterial Blight (Race 1)	<u>NT</u> <i>Rhizoctonia solani</i>
<u>NT</u> Bacterial Blight (Race 2)	<u>NT</u> Southwestern Cotton Rust
<u>NT</u> Bacterial Blight (Race)	<u>NT</u> Thielaviopsis basicola
<u>NT</u> Diplodia Boll Rot	<u>R</u> Verticillium Wilt
<u>NT</u> Other (specify)	

14. NEMATODES, INSECTS AND PESTS: (NT=Not tested, S=Susceptible, MS= Moderately Susceptible, MR=Moderately Resistant, R= Resistant

<u>MS</u>	Root-Knot Nematode	<u>NT</u>	Reniform Nematode
<u>NT</u>	Boll Weevil	<u>NT</u>	Grasshopper (specify species):
<u>NT</u>	Bollworm	<u>NT</u>	Lygus (specify species):
<u>NT</u>	Cotton Aphid	<u>NT</u>	Pink Bollworm
<u>NT</u>	Cotton Fleahopper	<u>NT</u>	Spider Mite (specify species): _____
<u>NT</u>	Cotton Leafworm	<u>NT</u>	Stink Bug
<u>NT</u>	Cutworm (specify species): _____	<u>NT</u>	Thrips (specify species): _____
<u>NT</u>	Fall Armyworm	<u>NT</u>	Tobacco Bud Worm
<u>NT</u>	Other (specify): _____		

15. COMMENTS: Present any additional information that cannot adequately be described in 1 through 13 which significantly distinguishes your variety.

Exhibit D. Additional Description of Hammer

Table 2. 2003 CPCSD Advanced Strain Test - Six Locations

Variety	Lint Yield						Lint Yield Average (lbs/A)	Seed Cotton Yield (lbs/A)	Gin Turn Out (%)	Fiber Traits			Yarn		SCF Rating lb/short	Seed Index (g)	Boll weight (g)	Lint Percent (%)	Lint per boll (g)	Seeds per boll	Plant Height (in)			
	Button- willow (lbs/A)	Shafter (lbs/A)	Tulare (lbs/A)	Riverdale (lbs/A)	Firebaugh (lbs/A)	Dos Palos (lbs/A)				2.5% length (in)	Unif. Ratio	T1 (g/tex)	E1 (%)	Mic								Str. (g/tex)		
Maxxa	1178	1443	1238	1149	1203	1565	1296	4010	31.7	1.166	49.2	26.6	8.5	4.16	136.3	1.8	12.8	5.7	40.8	2.3	26.5	2.2	8.8	44.6
Phy72	1385	1710	1577	1535	1473	1883	1561	5032	30.5	1.213	48.2	27.5	9.7	4.26	134.4	1.5	11.5	5.6	39.2	2.2	29.5	4.3	7.4	47.3
Hammer	1707	2000	1913	1561	1498	1814	1749	4611	37.6	1.093	50.0	25.7	8.7	4.50	126.3	7.1	11.3	5.3	47.1	2.5	24.8	3.0	10.0	43.5
LSD.05	43	91	70	129	60	102	77	183	0.7	0.013	0.6	0.7	0.4	0.14	4.1	0.8	0.6	0.4	1.1	0.2	2.0	0.7	0.5	2.5
CV%	3	4.6	4	8.1	3.1	5.4	5	4	1.7	1.163	1.2	2.6	4.7	3.49	2.5	16.7	5.1	7.6	2.8	7.5	7.6	21.3	5.3	5.6

Table 3. 2002 CPCSD Advanced Strain Test - Six Locations

Variety	Button-willow (lbs/A)	Lint Yield						Seed Cotton Yield (lbs/A)	Gin Turn Out (%)	Fiber Traits			Yarn		SCF Rating (lb/short)	Seed Index (g)	Boll weight (g)	Lint Percent (%)	Lint per boll (g)	Seeds per boll	Vert. Rating 10-seed	Lint index (g)	Plant Height (in)	
		Shafter (lbs/A)	Tulare (lbs/A)	Riverdale (lbs/A)	Firebaugh (lbs/A)	Dos Palos (lbs/A)	Lint Yield (lbs/A)			2.5% length (in)	Unif. Ratio	T1 (g/tex)	E1 (%)	Mic										Str. (g/tex)
Maxxa	1381	1722	1584	1528	1552	1181	1491	4490	33.1	1.181	48.5	24.9	8.9	3.88	150.9	2.5	13.1	6.5	41.4	2.7	29.2	3.3	9.3	41.4
Phy72	1586	2001	1806	1661	1553	1217	1637	5123	32.1	1.215	46.8	25.6	10.4	4.00	146.4	1.9	11.2	5.8	39.7	2.3	31.6	5.5	7.3	41.9
Hammer	1687	2064	1809	2245	1704	1567	1846	4863	37.9	1.106	48.5	24.5	9.1	4.12	140.8	5.8	11.4	6.2	47.6	2.9	28.5	2.7	10.3	39.6
LSD.05	42	85	111	227	95	82	99	290	0.73	0.012	0.7	0.74	0.41	0.18	8.3	0.71	0.4	0.4	0.4	0.2	1.8	0.9	0.3	3.0
CV%	2.0	3.7	5.5	10.8	4.9	5.2	6.3	6.3	1.8	1.7	2.5	3.8	6.5	6.1	4.7	18.1	3.6	5.7	1.1	5.7	6.3	15.4	3.3	6.6

Table 4. 2001 CPCSD Advanced Strain Test - Six Locations

Button-willow Variety	Lint Yield						Seed Cotton Yield (lbs/A)	Gin Turn Out (%)	Fiber Traits				Yarn Str. (g/tex)	SCF Rating	Seed Index (g)	Boll weight (g)	Lint Percent (%)	Lint per boll (g)	Seeds per boll		
	Shafter (lbs/A)	Tulare (lbs/A)	Riverdale (lbs/A)	Firebaugh (lbs/A)	Dos Palos (lbs/A)	Average (lbs/A)			2.5% length (in)	Unif. Ratio	T1									E1 (%)	Mic
											(g/tex)	(%)									
1756 Maxxa	1140	1057	1378	1171	1656	1364	3971	34.5	1.184	48.2	25.0	6.8	4.22	135.7	4.4	12.6	6.2	34.5	2.7	28.3	
1913 Phy72	1397	1205	1544	1200	1986	1543	4681	33.2	1.202	47.7	25.1	8.4	4.39	138.7	1.2	10.7	5.9	33.2	2.4	32.7	
2184 Henner	1383	1254	1684	1365	2164	1668	4184	40.0	1.110	48.4	24.2	7.3	4.38	132.4	7.9	10.9	6.0	40.0	2.9	28.2	
70 LSD.05	213	164	118	89	122	75	202	0.8	0.013	0.6	0.7	0.3	0.13	8.7	2.5	0.3	0.3	0.8	0.2	1.5	
2.7 CV%	14.0	12.5	6.6	6.0	5.5	5	5	1.6	1.43	1.66	3.5	6.2	4.2	3.5	28.8	2.4	4.8	1.6	5.1	4.7	

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) California Planting Cotton Seed Distributors	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER C103	3. VARIETY NAME Hammer
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) PO Box 80357 Bakersfield, CA 93380-0357	5. TELEPHONE (Include area code) (661) 399-1400	6. FAX (Include area code) (661) 399-3169
7. PVPO NUMBER 2005 00115		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

The applicant is the original breeder and current owner of the variety. No ownership trace is necessary.

The variety was developed from germplasm and seedstocks owned by the applicant, by individuals employed by the applicant, at facilities owned by the applicant, or through contractual arrangements made by the applicant.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.